

Appl. No. 10/075,193

REMARKS

Claims 42-48 are pending in the application.

Claims 42-48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown, U.S. Patent No. 5,418,180 as combined with Figura, U.S. Patent No. 5,661,064 and DeBoer, U.S. Patent No. 6,046,093. In accordance with MPEP § 2143, a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 42-48 are allowable over the cited combination of Brown, Figura and DeBoer for at least the reason that the references, individually or as combined, fail to disclose or suggest each and every limitation in any of those claims.

Independent claim 42 recites forming a container construction having a first silicon-containing layer around a second silicon-containing layer where the first silicon-containing layer is more heavily doped than the second. Claim 42 further recites that the second silicon-containing layer defines an exposed inner periphery of the container and the first silicon-containing layer defines an exposed outer periphery of the container, and recites forming a dielectric material along the exposed inner and the exposed outer peripheries of the container construction. Brown discloses various capacitor constructions having hemispherical grain silicon surfaces (abstract and Figs. 6-8, and the accompanying text). At page 3 of the present Action the Examiner indicates that Brown discloses forming a dielectric material layer 81 along an exposed inner and an exposed outer periphery of the container construction. Brown, however, specifically indicates a layer of titanium nitride material disposed between dielectric material layer 81 and silicon-containing layers (Figs.

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7A, 7B and 8, and the text at col. 5, ll. 7-29). Brown further indicates that an important concept of the disclosed invention "is the use of titanium nitride to coat hemispherical grain silicon which together form a storage node cell plate" (col. 5, ll. 30-32). Brown does not disclose or suggest the claim 42 recited forming a dielectric material along an exposed inner and an exposed outer periphery of a container construction where the exposed inner periphery is defined by a second silicon-containing layer and the exposed outer periphery is defined by a first silicon-containing layer.

As indicated at pages 3-4 of the present Action, Figura is relied upon as showing differentially doped layers. As further indicated at page 4 of the present action, DeBoer is relied upon as showing methods of forming capacitors comprising HSG silicon. As combined with Brown, neither the HSG comprising capacitor disclosed by DeBoer nor the differentially doped layers disclosed by Figura, contribute toward suggesting the claim 42 recited forming a dielectric material along an exposed inner and an exposed outer periphery of a container construction where the exposed inner periphery of the container is defined by a second silicon-containing layer and the exposed outer periphery of the container is defined by a first silicon-containing layer. Accordingly, independent claim 42 is not rendered obvious by the cited combination of Brown, Figura and DeBoer and is allowable over these references.

Dependent claims 43-48 are allowable over the cited combination of Brown, DeBoer and Figura for at least the reason that they depend from allowable base claim 42.

For the reasons discussed above, pending claims 42-48 are allowable. Accordingly, Applicant respectfully requests formal allowance of such pending claims in the Examiner's next action.

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Respectfully submitted,

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